

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1337242
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____

1337242

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

Date of First, Resumed Production, SWD or ENHR: _____ Producing Method:
 Flowing Pumping Gas Lift Other *(Explain)* _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	FABRIZIUS 1-2
Doc ID	1337242

All Electric Logs Run

Micro
Sonic
Dual Induction
Compensated Density Neutron

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	FABRIZIUS 1-2
Doc ID	1337242

Tops

Name	Top	Datum
Top Anhydrite	1716'	+589
Base Anhydrite	1762'	+543
Topeka	3417'	-1112
Heebner	3655'	-1350
Toronto	3673'	-1368
LKC	3688'	-1383
BKC	3937'	-1632
Marmaton	4037'	-1732
Cherokee Shale	4082'	-1777
Conglomerate Sand	4128'	-1823
Mississippi	4174'	-1869

Marc A. Downing
Geologic Report
Consulting Petroleum Geologist
Drilling Time and Sample Log

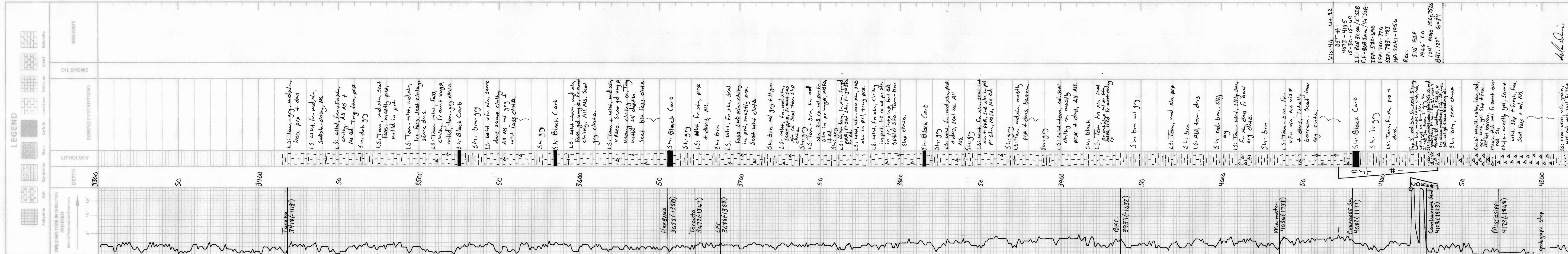
Operator Downing-Nelson Oil Co., Inc.		Elevation	
Lease Fabrizius No. 1-2		KB	2305
API # 15-195-23015-0000		DF	2303
Field Wildcat		GL	2297
Location 429' FNL & 2210' FEL		Casing Record	
Sec. 2 Twp. 14s Rgc. 22w		Surface 8 5/8" @ 220'	
County Trego State Kansas		Production 5 1/2" @ 4225'	
Formation		Electrical Surveys	
Sample tops	Log Tops	CNDL, DIL, MEL, Sonic	
Top Anhydrite 1722	1716		
Base Anhydrite 1761	1762		

Drilling Contractor **Discovery Drilling, Rig #2**
 Commenced **2-3-17** Completed **2-10-17**
 Samples Saved From **3400** To **RTD**
 Drilling Time Kept From **3300** To **RTD**
 Samples Examined From **3400** To **RTD**
 Geological Supervision From **3400** To **RTD**

Top Anhydrite	1722	1716	+589	+4
Base Anhydrite	1761	1762	+543	FL
Topeka	3418	3417	-1112	+4
Heebner	3655	3655	-1350	+3
Toronto	3672	3673	-1368	+3
LKC	3688	3688	-1383	+4
BKC	3937	3937	-1632	+2
Marmaton	4036	4037	-1732	+3
Cherokee Sh.	4082	4082	-1777	+7
Conglomerate Sand	4128	4128	-1823	+7
Mississippi	4173	4174	-1869	+9
Total Depth	4226	4227	-1922	

Summary and Recommendations
 Due to structural position, DST recovery, and log evaluation, it was decided to set 5 1/2" production casing for completion.

Respectfully Submitted,
 Marc A. Downing



Vis: 46 Lat: 92
 DST #1
 4073-4135
 15-30-15-40
 I.F.-808 30 sec / 2" SIB
 F.F.-808 Imm. / 1/4" SIB
 IFF: 582-690
 FFP: 740-776
 SIF: 783-783
 HP: 2041-1956
 Rec: SIO GIP
 1946 CO
 124' MGO 157g, 787g
 BHT: 122' G-34

M.A. Downing



DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co Inc**

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson, Marc Dow

Fabrizius #1-2

2-14s-22w Trego

Start Date: 2017.02.09 @ 03:55:06

End Date: 2017.02.09 @ 12:11:00

Job Ticket #: 64090 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.02.10 @ 09:55:39



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

2-14s-22w Trego

PO Box 1019
Hays KS 67601

Fabrizius #1-2

Job Ticket: 64090

DST#: 1

ATTN: Ron Nelson, Marc Dow

Test Start: 2017.02.09 @ 03:55:06

GENERAL INFORMATION:

Formation: **Conglomerate Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:24:01

Time Test Ended: 12:11:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Ray Schwager

Unit No: 77

Interval: 4073.00 ft (KB) To 4135.00 ft (KB) (TVD)

Reference Elevations: 2303.00 ft (KB)

Total Depth: 4135.00 ft (KB) (TVD)

2295.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8360

Inside

Press@RunDepth: 775.66 psig @ 4079.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.02.09

End Date:

2017.02.09

Last Calib.:

2017.02.09

Start Time: 03:55:06

End Time:

12:11:00

Time On Btm:

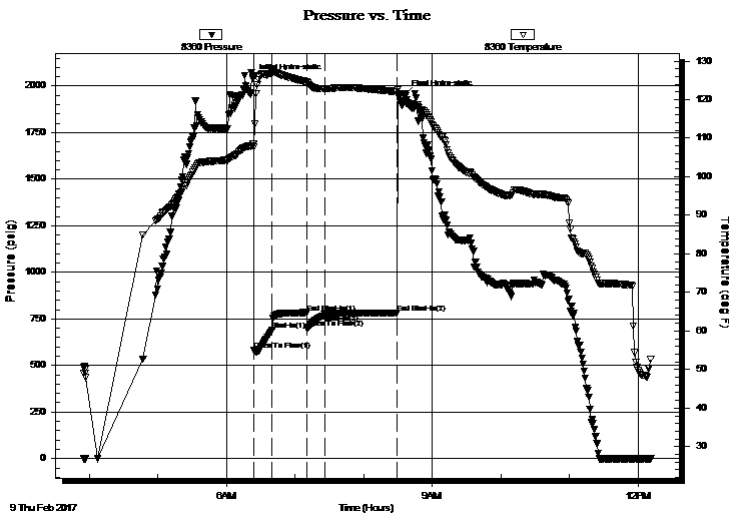
2017.02.09 @ 06:23:16

Time Off Btm:

2017.02.09 @ 08:35:45

TEST COMMENT: 15-IFP-BOB in 30 sec
30-ISIP-2"bl bk
15-FFP-BOB thru-out
60-FSIP-1/4" bl bk

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2041.18	108.43	Initial Hydro-static
1	582.05	107.69	Open To Flow (1)
17	689.87	126.90	Shut-In(1)
47	782.61	124.58	End Shut-In(1)
47	700.43	124.53	Open To Flow (2)
63	775.66	122.79	Shut-In(2)
126	782.87	122.04	End Shut-In(2)
133	1956.06	119.65	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	GMO 15%G10%M75%O	0.88
1966.00	CO	26.29
0.00	510'GIP	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co Inc

2-14s-22w Trego

PO Box 1019
Hays KS 67601

Fabrizius #1-2

Job Ticket: 64090

DST#: 1

ATTN: Ron Nelson, Marc Dow

Test Start: 2017.02.09 @ 03:55:06

Tool Information

Drill Pipe:	Length: 3745.00 ft	Diameter: 3.80 inches	Volume: 52.53 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 310.00 ft	Diameter: 2.70 inches	Volume: 2.20 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 54.73 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	4073.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	62.00 ft			
Tool Length:	91.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4045.00	
Shut In Tool	5.00			4050.00	
Hydraulic tool	5.00			4055.00	
Jars	5.00			4060.00	
Safety Joint	3.00			4063.00	
Packer	5.00			4068.00	29.00 Bottom Of Top Packer
Packer	5.00			4073.00	
Stubb	1.00			4074.00	
Perforations	5.00			4079.00	
Recorder	0.00	8360	Inside	4079.00	
Recorder	0.00	6751	Outside	4079.00	
Blank Spacing	33.00			4112.00	
Perforations	20.00			4132.00	
Bullnose	3.00			4135.00	62.00 Bottom Packers & Anchor

Total Tool Length: 91.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

2-14s-22w Trego

PO Box 1019
Hays KS 67601

Fabrizius #1-2

Job Ticket: 64090

DST#: 1

ATTN: Ron Nelson, Marc Dow

Test Start: 2017.02.09 @ 03:55:06

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.75 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	GMO 15%G10%M75%O	0.878
1966.00	CO	26.286
0.00	510'GIP	0.000

Total Length: 2090.00 ft Total Volume: 27.164 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

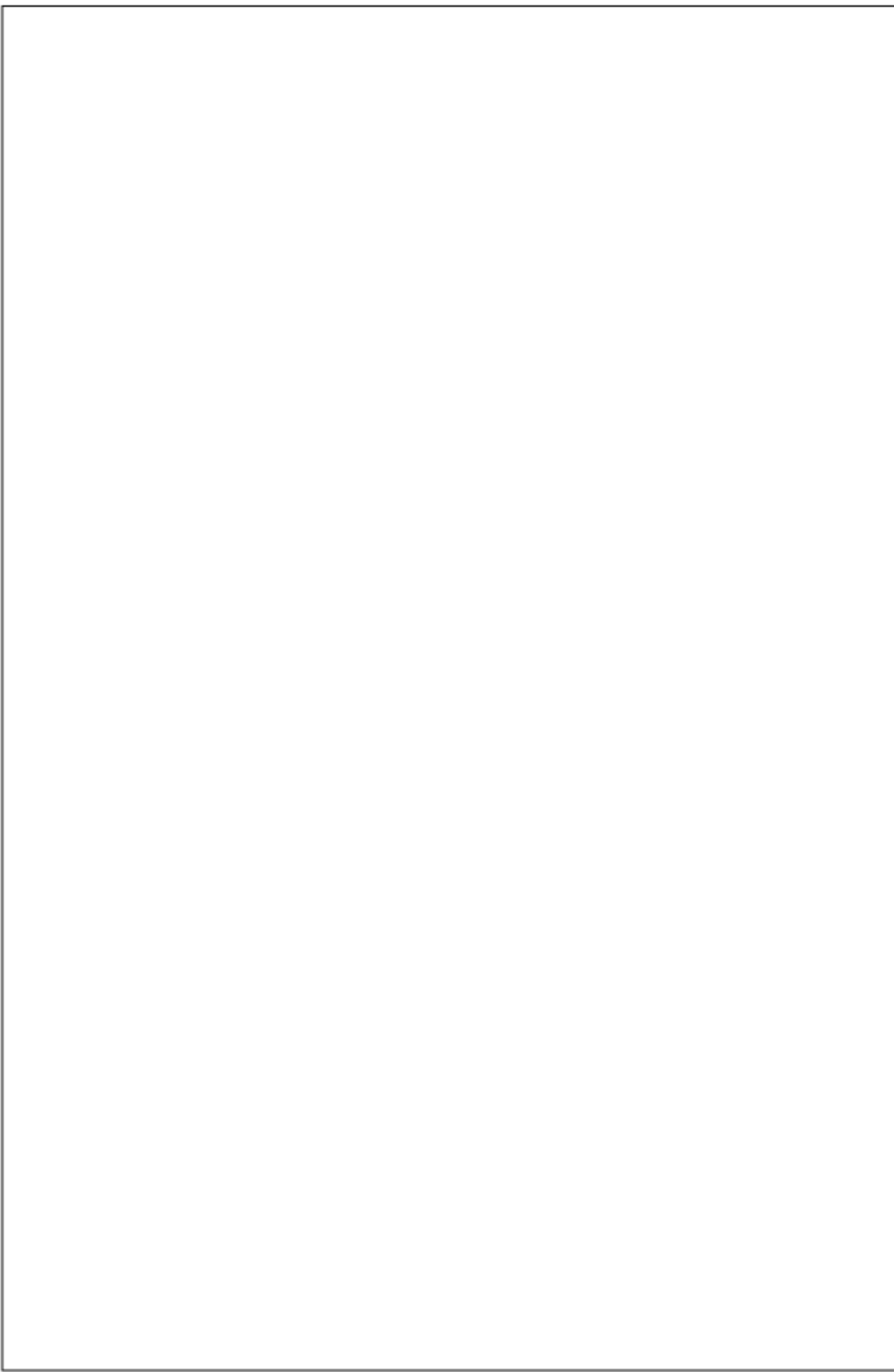
Serial #: 8360

Inside

Downing-Nelson Oil Co Inc

Fabrizius #1-2

DST Test Number: 1



Tribble Testing, Inc

Ref. No: 64090

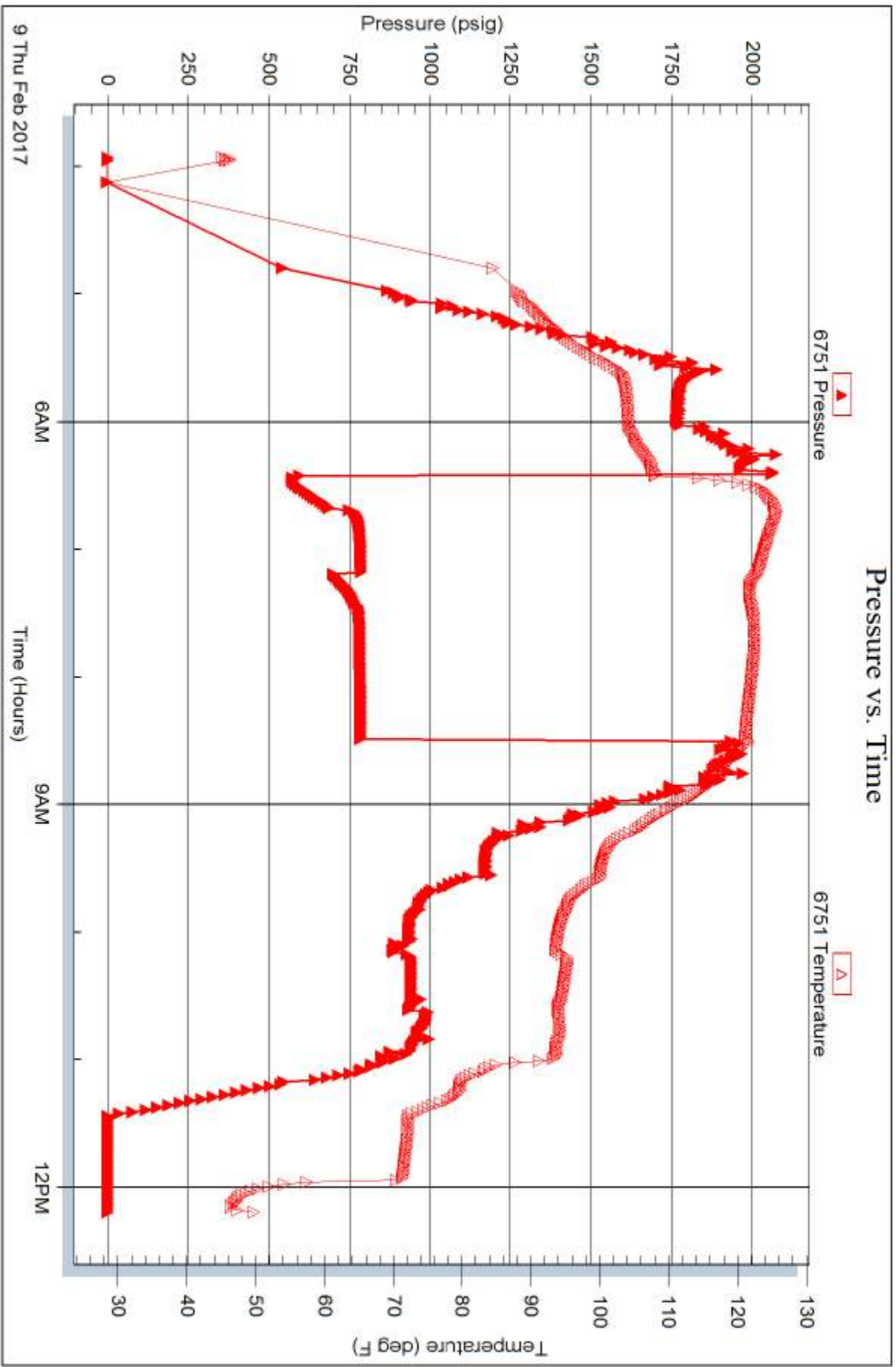
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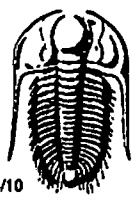
Serial #: 6751

Outside Dow nng-Nelson Oil Co Inc

Fabrizius #1-2

DST Test Number: 1





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64090

Well Name & No. Fabrizius 1-2 Test No. 1 Date 2-9-2017
 Company Downing-Nelson Oil Co Inc Elevation 2303 KB 2295 GL
 Address Po Box 1019 Hays, Ko 67601
 Co. Rep / Geo. MARC Downing Rig Discovery rig 2
 Location: Sec. 2 Twp. 14^s Rge. 22^w Co. Trego State Ko

Interval Tested 4073-4135 Zone Tested Congl. sd.
 Anchor Length 62 Drill Pipe Run 3745 Mud Wt. 9.2
 Top Packer Depth 4068 Drill Collars Run - Vis 46
 Bottom Packer Depth 4073 Wt. Pipe Run 310 WL 8.8
 Total Depth 4135 Chlorides 3000 ppm System LCM 1#
 Blow Description IFP - BOB IN 30 sec
ISIP - 2" Blow Back
FFP - BOB Thru-out
FSIP - 1/4" Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>510</u>	<u>GIP</u>				
<u>1966</u>	<u>Co</u>				
<u>124</u>	<u>MGO</u>	<u>15</u>	<u>75</u>		<u>10</u>

Rec Total 2090 BHT 122 Gravity 34 API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic <u>2041</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>0315</u>
(B) First Initial Flow <u>582</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0355</u>
(C) First Final Flow <u>689</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0625</u>
(D) Initial Shut-In <u>782</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>0825</u>
(E) Second Initial Flow <u>700</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1211</u>
(F) Second Final Flow <u>725</u>	<input checked="" type="checkbox"/> Mileage <u>71RT</u> 53.25+53.25	Comments <u>Released 1830 9th</u>
(G) Final Shut-In <u>782</u>	<input type="checkbox"/> Sampler	<u>Back to Rig to load Tools</u>
(H) Final Hydrostatic <u>1956</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>15</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>15</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>1581.50</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1581.50</u>	

Approved By _____ Our Representative Ray Schwager THANK YOU
 TriLOBITE TESTING INC. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 7331

Date	2-3-17	Sec.	2	Twp.	14	Range	22	County	Trego	State	Ks	On Location		Finish	11:15pm
								Location							
								Gallah 9 3/4 E S110							

Lease	Fabrizius	Well No.	1-2	Owner		
Contractor	Discovery #2			To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.		
Type Job	Surface			Charge To	Downing / Nelson	
Hole Size	12 1/4	T.D.	221	Street		
Csg.	8 5/8	Depth	220	City	State	
Tbg. Size		Depth		The above was done to satisfaction and supervision of owner agent or contractor.		
Tool		Depth		Cement Amount Ordered 150 8/20 3/11 2/02		
Cement Left in Csg.	10	Shoe Joint				
Meas Line		Displace	1334			

EQUIPMENT

Pumptrk	20	No.	Cement	Common	120
			Helper	Poz. Mix	30
Bulktrk		No.	Driver	Gel.	3
			Driver	Calcium	6
Bulktrk	19	No.	Driver		
			Driver		

JOB SERVICES & REMARKS

Remarks:	Hulls
Rat Hole	Salt
Mouse Hole	Flowseal
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38
8 5/8 on bottom BIV rotation	Sand
Mix 1500 & Displace	Handling 159
	Mileage

FLOAT EQUIPMENT

Cement (Grouted)	Guide Shoe
	Centralizer
	Baskets
	AFU Inserts
	Float Shoe
	Latch Down

Quality Oilwell
Cementing

Pumptrk Charge	Surface	Tax	
Mileage	38	Discount	
Signature		Total Charge	

JG

SWIFT Services, Inc.

DATE 10 Feb 17 PAGE NO.

ER Nelson

WELL NO. 1-2

LEASE FABRIZIUS

JOB TYPE Cement longstring - 2 stage

TICKET NO. 30146

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
								150sk EA-2 cement w/ 1/4" floccle 200sk SAND cement w/ 1/4" floccle 5 1/2" x 15.5" casing 101, jt 4224 42' short Centralizer 3, 5, 7, 9, 11, 13, 58 Basket #59 DV tool 1728' #59
	0930							on loc TRK 114
	1030							start 5 1/2" x 15.5" casing in well
	1404							Drop ball - circulates
	1445	5	12				150	Pump 500 gal mud flush
		5	20				150	Pump 20 bbl KCh flush
	1452	5 1/4	35				150	MIX EA-2 cement 150 @ 15.3 ppg Drop 1st stage 14' ch down plug wash out Pump & line
	1508	6					200	Displace plug
	1530	6	110				1550	Land plug 1st stage Release pressure to truck - dried up Drop bomb
	1505						1500	open DV tool - circ 15 min MIX SAND cement
	1540	5 1/4	7 100				150	Plg RH - MH 30sk - 20sk mix SAND cement 150sk @ 11.2 ppg Drop 2nd plug
	1620	6					200	Displace plug
	1630	6					1400	→ cement to surface ← Land plug 2nd stage - close DV Release pressure to truck - dried up
	1635							wash truck Pack up
	1700							job complete

30sk to pit

Trucks
Blow, shut & pump